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Atty. Dkt. No. 037607-0251

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kemper et al.

Title: SYSTEM AND METHOD FOR
VERIFYING LOAN DATA AT
DELIVERY

Appl. No.: 10/737,298

Filing Date: 12/16/2003

Examiner: Hamilton, Lalita M.

Art Unit: 3624

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Commissioner for Patents
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Alexandria, VA 22313-1450

Sir:

We, John L. Kemper and David A. Coleman state and declare that:

1. Each of us is an inventor of at least one of claims 1-38 currently pending in U.S. Patent Application No. 10/737,298, titled "SYSTEM AND METHOD FOR VERIFYING LOAN DATA AT DELIVERY" (hereinafter "the '298 application").
2. Prior to May 1, 2003, the filing date of Published U.S. Patent Application 2004/0030649 and prior to May 6, 2002, the priority date of Published U.S. Patent Application 2004/0030649, we conceived and reduced to practice in the United States, the ideas set forth in the above listed claims of the '298 application and described in the '298 application as evidenced by the attached Exhibit A.
3. Exhibit A, titled "Core Infrastructure Project, Single Family Acquisitions, Delivery Requirements," is a redacted copy of pages from a document outlining features used

in the "System and Method for Verifying Loan Data at Delivery," described and claimed in the '298 application.

4. The dates deleted from Exhibit A are prior to May 6, 2002. Exhibit A was in existence prior to May 6, 2002.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date 11/10/2004

By



John L. Kemper

Date _____

By

David A. Coleman



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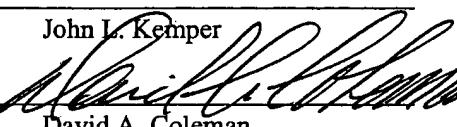
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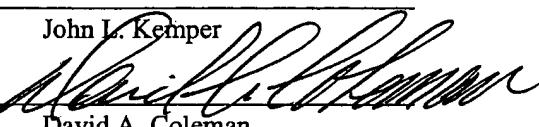
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Date _____

By _____

Date November 8, 2007

By 
John L. Kemper

By 
David A. Coleman



Fannie Mae

Core Infrastructure Project

Single Family Acquisitions

Delivery Requirements

Fannie Mae

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Delivery Overview

Today, Sellers are constricted by the rigidity of Fannie Mae's delivery/servicing systems. There are products that cannot be delivered through "normal" channels (MORNED) because the product has data elements not currently supported in our 2000 character format or the Sellers must enter the data more than once into more than one system (e.g. DU and Delivery). The Core Infrastructure Project will integrate key aspects of Fannie Mae's underwriting system (DU), pricing system (Pricing Engine), and delivery system (Delivery) to allow for the following:

- Single point of entry (one channel to deliver)
- Multiple methods of data transmission
- DU/Delivery connection

Currently the Fannie Mae Delivery System is very inflexible when it comes to all data and edits to be performed on the loan data being received from the Seller. The new system will have a flexible edit engine, allowing for quick additions, changes, and severity levels going forward as well as the ability to quickly add required data elements as necessary to allow for Fannie Mae business to grow in areas where we are currently restricted by system inflexibilities. The goal of the Delivery system is to reduce the amount of time it takes to introduce a new product.

The Delivery system will allow the Seller and Fannie Mae to access and view the same data and an Acquisition file containing all Acquisition data elements will be sent to the Servicer of the loan.

1. Methods of Delivery

1.1. Data Delivery Methods

The Delivery System will allow the Seller three different ways to deliver. The new Delivery System will allow the seller to:

1.1.1. Logon to the Fannie Mae website and edit loans/pools using the edit engine without the intent of immediately delivering the loans/pools for purchase or pooling. With this option, the seller will have the ability to submit data without a Fannie Mae loan number. The seller can request the Fannie Mae Delivery business edits to be run (data format edits will always be run automatically). The loans will be edited and the results will be displayed back to the seller. The seller will have the ability to update the data and re-edit this data as necessary.

1.1.2. Submit the loan/pool data to the system, run the data format edits, but do not run the business edits for the loans/pools. The purpose of this option is for sellers to send loan data to Fannie Mae to hold until further notice. The loans will only be subject to business editing and purchase/pooling when the seller clicks the "edit" or "submit" button. Once the seller successfully edits and then submits the data, the system will generate a Fannie Mae loan number for each of the loans.

1.1.3. "Traditional Delivery Method" - Submit the loan/pool data to the system, run the format and business with the intent to purchase or securitize. The system will generate the Fannie Mae Loan Number for each of the loans.

1.2. Post Submission



1.2.1. After submitting data, the system will communicate errors in submission through edits that can be addressed by either Fannie Mae or the Seller.

2. Data Capture Sources

2.1. Data Capture Scenarios

2.1.1. The system will allow for data capture in the following methods:

- Upload
- On-Line

2.1.2. The system will allow the seller to combine all products in one file format OR to deliver unique products (i.e. Reverse Mortgages) on separate file formats.

2.1.3. To provide maximum flexibility the system needs to allow for the import of the following existing file formats:

- Fannie Mae 2000 Character File ASCII Text Format (for Cash and Pool Submissions)
- Reverse Mortgage File Format
- Energy Loan File Format
- Additional Data Elements – Required Borrower and Property Data (Housing Goals Data)

2.1.4. If the Seller selects one of the product specific formats listed above, they do not have to select a product type. The system will identify the product based on the file layout.

2.1.5. Provide an "expanded" 2000 character file ASCII text Format.

2.1.6. Allow for new .xml –based files that can be customized to accommodate all products.

2.1.7. If the Seller selects the generic format, the system will prompt the user to select the product type (i.e. Reverse) so that the loan can be identified as a specific product for editing.

2.1.8. If the Seller has made an execution decision the system will allow the Seller the flexibility to deliver data elements which comprise the Plan Number and Special Feature Codes or to deliver the Plan Number and Special Feature Code values. A translator must be built to take a summary level fields (such as Plan Number) and break it down to the lower level attributes.

3. Processing

3.1. Data Processing Scenarios

3.1.1. If the seller uses batch submission and if the loan is not in a Certified or in a Ready for Purchase status, the system will facilitate the seller to submit a transmission and overwrite an existing data or allow them to append the existing loan by filling in missing data. The loan will require re-editing after the update or overwrite.

3.1.2. Address Scrubbing and Geo Coding

After capturing address information that passes basic edit validation (format edits), the system performs address scrubbing and geo coding to standardize the address information and supplement existing address data. The outcome is a standard format for address data that will be used in data submission for delivery. If the delivery system does not send a correct file to the scrubbing system, a warning is logged and data is submitted. If the seller indicates that the scrubbing system has not come back with the correct address, they may edit captured data or submit the address data with warnings. (See Delivery Appendix B for detailed information on Address Scrubbing Data)

Address Scrubbing

3.1.2.1. Provide Address Scrubbing at the time data is captured and format edits are run.

3.1.2.2. As part of the submission process, the data is scrubbed so that it reflects a legal address as defined by the U.S. Postal Service.

3.1.2.3. A flat .DAT file with address information and a trigger .TRG file are sent through ftp to the Address Scrubbing Service input directory. These files should be generated by the Delivery System based on the data captured from the Seller. .DAT file contains the following information:

- Loan ID
- Street Address
- City Name
- State Abbr.
- Zip Code (w/leading zeros or zero-filled if blank)

3.1.2.4. The Address Scrubbing Service interfaces with *Sagent* third-party software, which recognizes and normalizes the data in order to find a property. This is NOT an interface from the Delivery system. The Delivery system interfaces only with the Address Scrubbing Service, which then interfaces to *Sagent* software.

3.1.2.5. The Address Scrubbing Service returns two files to an output directory queue, to be retried by ftp. The .OUT file has the scrubbed address (if available). The .RPT is a report file that has additional statistics about the job. It indicates if the .OUT file is ready to be read by the Delivery system. If the file

sent to the service was of the wrong format, an .ERR file is returned instead of the .OUT file. This error should never occur, however, if the Delivery system is generating .DAT and .TRG files automatically.

3.1.2.6. The Delivery system should retrieve files from the Address Scrubbing Service output queue and write a .DON file to the input queue to indicate retrieval of the files.

3.1.2.7. The Seller should have the ability to view scrubbed data to verify correctness before data submission.

3.1.2.8. The system should generate warnings if the property does not exist in their database, but this should not prohibit the loan data from being delivered. There are situations, especially for new developments, when there is a time lag for the new addresses to be entered in the Postal Service database. Warnings should also be generated based on the QMS Match Quality Code. A flag or warning message should be appended to the scrubbed data based on the error type returned in the QMS Match Quality Code.

3.1.2.9. Scrubbed data should be appended to the original captured Seller address data. The first five fields of the .OUT file contain the original input file information (identical to .DAT information). The scrubbed data fields include:

- Scrubbed Street Address
- Scrubbed City Name
- Scrubbed Two letter state abbreviation
- 9 digit ZIP code
- QMS Match Quality Code
- QMS Location Quality Code

3.1.2.10. The Seller must have the ability to acknowledge possible errors in the address and continue submission or cancel and edit captured data before re-running edits and address scrubbing process.

Geo Coding

3.1.2.11. Provide Address Scrubbing at the time data is captured and format edits are run. Geo Coding takes place concurrently with Address Scrubbing, using the same *Sagent* third-party software, and can be turned off if the Geo Coding information is no longer necessary by using a code in the trigger file.

3.1.2.12. The Geo Coding function helps in providing additional geographic information on the property. This includes:

- USPS Range Record type

- Longitude (millionths)
- Latitude (millionths)
- Tract (State FIPS + County FIPS + Tract)
- Block Group, Block Metropolitan Statistical Area Number
- FIPS Place ID
- Central City (Y or N) Congressional District (State Abbr + Dist.)
- Ward (DC only)
- Minor Civil Division FIPS Code
- American Indian (Tribal Land) Code

3.1.2.13. The system should generate warnings and append to the Geo Coding data based on the Location Quality Code if it returns no location available (denoted as an "E").

3.1.2.14. The seller should be able to acknowledge the location quality warning before submission. This warning could be displayed concurrent with match code warnings with the option of revising before submission.

3.1.2.15. The system should append Geo Coding data to the original captured data.

3.1.3. Loan Limit Validation

3.1.3.1. As loans are captured (either through the manual keying process or at upload), the system needs to check to see if the loan currently exists on our servicing database.

3.1.3.2. If the loan exists and it is NOT a duplicate (i.e. the lien type is not identical), add the two Unpaid Principal Balances or Issue Date Unpaid Principal Balances at Acquisitions together.

3.1.3.3. Validate that the combined balances do not exceed our chartered Loan Limit requirements that are in effect at the time the second loan is submitted.

3.1.4. Duplicate Loan Check

3.1.4.1. Perform a duplicate loan check against all execution types and loans stored in the Fannie Mae Acquisitions/Servicing database. Duplicate loans can be saved in the system but cannot be submitted.

3.1.4.2. The loan information that comprises the Duplicate Key data is TBD. The current key is comprised of: Seller Number, Lender Loan ID, Lien Type, Participation Percent, Loan type, first Installment Due Date and the Address

Information.

3.1.4.3. In performing the address check in the duplicate process, the system should match against the normalized data from the Address Scrubbing.

3.2. Delivery Integration with DU and Pricing

Today, Desktop Underwriter (DU) and the Delivery Systems are not integrated. Sellers do not have an automated way to transfer DU data to Delivery. Sellers are required to re-key DU data into Delivery or hope that the data being sent to the Fannie Mae Delivery system is the data that was actually used to underwrite. The lack of automation and integration between DU and Delivery results in 1) sellers having to re-key data entered in DU, into Delivery; 2) the potential for sellers to unknowingly deliver incorrect data to Fannie Mae (data input errors that have an underwriting/pricing impact); 3) sellers not knowing when the DU and Delivery data (key underwriting/pricing) data is not in sync which may result in credit related fees; and 4) sellers not having the ability to know the "all in" price (interest and credit price). This often results in sellers being charged credit related fees by Fannie Mae, which are not actually billed to the seller for days/weeks after the actual delivery.

The Core Infrastructure Project will integrate key aspects of Fannie Mae's underwriting system (DU), pricing system (Pricing Engine), and delivery system (Delivery). For loans that were underwritten in DU, sellers will have the ability to transfer DU related data to Delivery automatically at their discretion. Sellers will also be notified when/if the data that is being delivered does not match the data that was used for underwriting. Specifically, sellers will be notified when the underwriting decision has changed and there is an impact to the price or fees Fannie Mae will charge them. Sellers will also be shown the "all in" price of a loan before the actual purchase or pooling has taken place. This "all in" price will itemize the key components of a price.

All loans that were not previously underwritten in DU will be sent through DU at the time of Delivery so that sellers can see what the underwriting decision would have been if they had actually underwritten the loan using DU. By sending all non-DU underwritten loans to DU at the time of Delivery, Fannie Mae hopes to also get a better understanding of how Fannie Mae's underwriting guidelines compare to other non-Fannie Mae underwriting engines (CLUES, LP, etc.).

3.2.1. DU, Delivery, Pricing Integration

3.2.1.1. DU and Delivery Integration

3.2.1.1.1. Sellers will have the ability to transfer certain loan data that was originally keyed into DU into the Delivery System. This transfer of data can be done on a single loan (i.e. Web UI) or a multiple loan basis (i.e. batch).

3.2.1.1.2. Delivering a loan Using the Delivery Application

For loans that were previously underwritten in DU, the seller will have the ability to transfer this data to the Delivery System when delivering a loan to Fannie Mae.

When a seller is keying in loan data into the new Delivery application, they will have the option of selecting the "DU Data" flag. This flag will be available for all submission types (web UI, batch submission). When the "DU Data" flag is set to "Yes", and there is a valid DU Case ID, the Delivery Application will automatically populate DU data into the Delivery "Loan Submission" screen. DU data that is populated in the Delivery "Loan Submission" screen will be uniquely identified on the screen so that a user will know the data is from DU (i.e. the section will be italicized or shaded). The seller can review this data to ensure that they actually want to use the DU data. Sellers will have the ability to update any of the data elements in this section if necessary.

Note: If the user is keying in loan data, or uploading loan data into the Delivery Web UI, and the "DU Data" flag is set to "Yes" and there is a valid DU Case ID, Delivery will automatically retrieve the data from the DU data store (real time). If the seller is submitting loan data via Delivery batch, the DU data will be automatically populated into the Delivery loan file.

If the "DU Data Flag" is set to "No", the user will be required to include all information via the data upload or manually key the data into the Delivery UI. In addition, if the seller is submitting data via batch and the "DU Data Flag" = "No", then the DU data will not be extracted- the seller will be required to supply this information.

In the event the DU Case ID is invalid (does not exist in the DU database), the system will ignore the "DU Data" flag and no data will be populated.

3.2.1.1.3. Delivering a Loan from DU OTW

Sellers will have the ability to deliver a loan from the Delivery application as well as Desktop Underwriter on the Web (DU OTW). Delivering a loan from DU OTW will work as follows:

After the seller successfully underwrites a loan, the DU OTW application will provide the seller with an option to deliver the loan. DU OTW will display a hyperlink stating "Deliver Loan Now". If the seller decides to deliver the loan from DU OTW and clicks the "Deliver Loan Now" hyperlink, a new browser will be launched and the Delivery "Loan Submission" screen will be presented to the user. The DU data that applies to the delivery of the loan will automatically populate the "Delivery Loan Submission" screen. The DU Case ID will also be automatically populated in the Delivery "Loan Submission UI". As stated in the "Delivering a Loan from Delivery" section, the DU data will be uniquely identified on the screen so that a user will know the data is from DU (i.e. the section will be italicized or shaded). The seller can review this data to ensure that they actually want to use the DU data. Sellers will have the ability to update any of the data elements in this section if

necessary.

It is important to note that DU OTW will not have Delivery functionality. Selecting the "Deliver Loan Now" hyperlink actually transfers the user to the Delivery application.

3.2.1.2. DU Loan – Underwriting and Data Compare

The Delivery application will notify a seller when the loan data being delivered differs from the data that was underwritten in DU. This purpose of this new edit is to warn a seller when certain data between Delivery and the DU underwriting file do not match. In addition, this edit will proactively notify sellers when they may encounter a price adjustment. Data from DU and Delivery that affect the DU underwriting decision and pricing will be compared. If there is a difference in the data, the loan will be re-underwritten in DU.

3.2.1.2.1. DU/Delivery Data Editing

Delivery loan data and DU underwriting data will be compared at the time of Delivery. Specifically, this compare will occur at the time the Delivery edits are run. The DU/Delivery data compare will be done for all loans regardless of loan execution type. The only prerequisite is that the loan was previously underwritten in DU. The seller will be required to supply a valid DU Case ID. If the DU Case ID is valid, the system will automatically retrieve the underwriting data from DU and perform the comparison. If the DU Case ID is invalid, a fatal edit will be displayed to the user stating:

"DU Case ID Invalid. Loan must be underwritten using a Fannie Mae approved underwriting engine. Please supply valid DU Case ID or enter approved underwriting engine code".

A valid (Fannie Mae) approved underwriting engine must be supplied in order for the loan to be delivered.

If a loan was previously underwritten in DU and the seller is Delivering a loan where the critical underwriting/pricing data does not match (see attachment 1 for critical underwriting/pricing data), the loan will be sent to a DU underwriting engine to be re-underwritten. In the event the DU underwriting decision is different than the last DU underwriting decision, the new DU/Delivery Data Compare Edit will display the following message to the seller: "Delivery and DU Data Do Not Match- Are you sure you want to continue?"

Note: Last DU underwriting decision is defined as the last DU decision stored on the DU Case File for a given loan number

This requirements document intentional does not identify where the loan data comparison will take place (DU or Delivery).

Depending on the results of the underwriting decision that was derived from the data supplied at Delivery, the message will be customized. The following is the logic on how the decision will be customized:

The following edit can be customized to the extent of the other Delivery Edits (See Delivery Appendix F).

Results of DU/Delivery Data Compare	Message to Seller (appended to edit)
Underwriting Decision Worse	The data submitted at Delivery has caused a change in the underwriting decision, which will impact Reps & Warrants, and/or Pricing. You can waive Reps & Warrants or go ahead and pay the new price.**
Underwriting Decision Better	The data submitted at Delivery has impacted the price of the loan. Please review Price. (no override required)

**For any loan where the seller agreed to waive reps & warrants, or agrees to a price change, the Delivery System will capture the Seller Number and Fannie Mae Loan Number, User ID (of person who agreed to waive reps & warrants or price change), and the date/time stamp (when the reps & warrants were waived or price change was acknowledged).

If the key underwriting and pricing data attributes match, the loan will not be re-underwritten.

3.2.1.3. Non-DU Loan Underwriting

In an effort to promote the use of Desktop Underwriter and facilitate Fannie Mae internal underwriting engine research, all loans that have not been previously underwritten in DU will be sent to a DU underwriting engine to be underwritten

3.2.1.3.1. Non-DU Loan Underwriting and Editing

All loans that are delivered to Fannie Mae via on-line UI, file upload, or batch submission where the Underwriting Engine ID does not equal DU will be sent to DU for underwriting. The underwriting decision will be displayed to the seller as information text only. The edit that will be displayed to the user will state:

"If this loan was underwritten in DU, the decision would be a <insert DU decision here>"

This edit will be set to information only and may not necessarily be displayed to all Fannie Mae sellers. As with any edit, this edit will conform to the Delivery Edit specifications (customized by seller, program, and seriousness).

3.2.2. Delivery/Pricing Integration

The Delivery application will provide sellers with an "All In" Price for all loans. This "All In" price will be displayed to the seller at the time of Delivery via the Delivery system "Data Submission" UI or via a batch submission summary report (see Delivery Functional Requirements)

3.2.2.1. Components of "All In" Price

Depending on the loan execution type, the Delivery System will display different components of a price to the seller. At the time a loan is successfully entered into Delivery, the seller will have the ability to view the "all in" price for a loan(s). The "all in" price will be available at the time the loan(s) are run through the inventory of Delivery edits. In addition, if the user wants to pre-edit a loan, the Delivery system will provide a seller with the "all in" price. The "all in" price will be displayed at the seller/product level and will include the following:

Execution = Cash

Interest Price (from CAPE)

+/- ARM Timing Adjustment (Pricing Engine, for ARM loans only)

+ Credit Adjustments (from Pricing Engine/Deal Management)

- Overall Seller Price Break (from Seller Eligibility System)

- Product Price Break for a Given Seller (from Seller Eligibility System)

= "All In" Price

Note: If any of the values above are 0, do not display the entire line item.

All line items above are displayed in BPS (excluding Interest Price)

Execution = MBS

Negotiated G-fee (from Deal Management)

+/- ARM Timing Adjustment (from Pricing Engine, for ARM loans only)

+ Credit Adjustments (from Pricing Engine/Deal Management)

+/- Buyup/Buydown (from Pricing Engine)

- Overall Seller Price Break (from Seller Eligibility System)

- Product Price Break for a Given Seller (from Seller Eligibility System)

= "All In" Price

3.2.3. DU Reporting

Fannie Mae users will have the ability to report on the following DU/Delivery Integration related items:

Report Name	Description
Delivery Re-Underwriting Summary	Identifies the number of loans that had to be re-underwritten in DU. This report can be broken down by: Seller (5/9 digit seller/servicer #)

	<p>product</p> <p>DU decision (is new DU decision better or worse than initial underwriting decision)-this piece will total the actual counts by decision.</p>
<i>Non DU Underwriting Report</i>	<p>Identifies the number of loans and the associated underwriting decision for loans that were never underwritten in DU. This report will display the DU decisions. The report will be broken down by:</p> <p>DU decision (subtotal by decision)</p> <p>Product</p> <p>Seller (5/9 digit seller/servicer #)</p>

3.3. Committing

The Committing system will have several different types of interaction with the Delivery system for cash executions, including data matching and data upload. Within the Committing system, a link will be provided to allow the user to send data directly to the Delivery System for delivery. Loans delivered for Best Effort commitments must be matched back to the commitment at data submission.

- 3.3.1. The Delivery system should match captured data elements of loans to data captured in the Committing system during the Best Efforts registration process. Business rules should reflect that data values in the Delivery system must match those in the Committing system.
- 3.3.1.1. Data for comparison should include: Borrower Name, Borrower Social Security Number, Property Address, Zip Code (See Delivery Appendix A for Data Elements).
- 3.3.1.2. Data captured during the registration process will be run through DU. A DU Case Number can be another identifier provided for matching data. However, this will limit matching to only those loans underwritten in DU. It is undecided as to whether all Best Efforts commitments will be run through DU-Lite; not all Best Efforts loans will have a DU Case Number at this time.
- 3.3.1.3. If data does not match, the seller should be notified to make another commitment or apply the loan toward another existing commitment. This is a delivery edit.
- 3.3.1.4. If data does not match, the seller should be able to correct captured data if it has simply been entered incorrectly by either editing data in the Delivery UI or re-uploading the data.
- 3.3.1.5. Some data will not be required to match exactly. Best Efforts will be providing a list of what data must match and what data should have tolerances or variances.
- 3.3.1.6. A report should be generated for Best Efforts to show the price at delivery versus the price at commitment. Requirements for this report are to be

FMIS will go to the database to retrieve their updates. (See Delivery Appendix D for Housing Goals Data Elements and Edit Rules information)

4. Edits

Each loan being delivered to Fannie Mae will be checked against data format rules and business rules (standard and custom). Business rules are based on the Fannie Mae Charter, Seller / Servicer Guide, and other rules specific to product, pool/piece/contract, pricing, commitment, and 3rd party (FHA/VA, MI). Creation and execution of these edits will be managed by the New Edit Engine. This engine will be available 24/7 to any approved internal or external platform wishing to use its services. The Edit engine manager application will comprise a UI that will enable authorized Fannie Mae users to easily maintain all edit rules (add, modify, and delete) without compromising the hierarchy of and inter-dependency among rules (See Appendices E and F for information on calculations and edit rules).

4.1. Edit Introduction

4.1.1. Users will be able to execute edits against loans via Fannie Mae's online Delivery application or by building API's to directly interface with this service from their selected platform.

4.1.2. The edits will be run with the following hierarchy: product/seller/contract.

- Format – field
- Standard
- Custom: e.g. LTV is over 80% and there is no MI code – standard edit, but Countrywide has a variance so the edit does not fire.

4.1.3. Upon successful complete of the upload, the data file is edited for format/field edits and saved on the Fannie Mae database. The seller can request, during the upload process, that the standard and custom edits be run at that time.

4.2. Editing Requirements

4.2.1. The system will perform data format edits and the business rule edits necessary to delivery loans to Fannie Mae. The business rules are loan, pool/piece, contract (including variances) and product specific.

4.2.2. The system will contain "Pool Rules" that will specify the guidelines for minimum balance requirements for various pool/product types.

4.2.3. The Edit Service will be structured to provide the flexibility to display the maximum number of edits to the seller (so that their deliveries will be clean prior to submission) OR the minimum number of field/format edits (so internal Fannie Mae personnel resolve the edits).

4.2.4. The system will provide meaningful edit feedback that contains meaningful edit messages detailed edit resolution instructions, and ways to resolve the errors.

4.2.5. If a seller submits loans via file upload/batch submission, then the seller will receive

a Batch Status Report that identifies outstanding edits and price information for each loan.

4.2.6. The seller and Fannie Mae users will have a real-time view and updates to the data in order to resolve data errors before the loan(s) is purchased or securitized.

4.2.7. Edit Workflow Manager

The purpose of the Edit Workflow Manager is to allow sellers and Fannie Mae personnel a workflow facility that will easily identify and aid in the resolution of Delivery related edits.

The edit Workflow Manager will display all loan delivery related edits that are outstanding (edits have been fired and are not resolved) and edits that have been resolved in the past 30 days (edits have fired but have been resolved by Fannie Mae or the seller). All edits that are in the "resolved" status will automatically be eliminated from the Edit Workflow Manager 30 days from the edit resolution date.

4.2.7.1. The Edit Workflow Manager will allow the user the ability to view all edits using the following filter criteria:

- Seller Number (5 or 9 digit#)
- Fannie Mae Loan Number
- Pool Number
- Transaction Type
- Deal ID
- Data Submission ID
- Data/Loan Submission Date (single date or range)
- Edit Type (short description-user can select one or more of these)
- Edit Severity
- Edit Date

4.2.7.2. The Edit Workflow Manager will display the following data elements to the user:

- Seller Number (5 or 9 digit#)
- Seller Name
- Fannie Mae Loan Number

- Pool Number
- Transaction Type
- Deal ID
- Loan Data Submission ID
- Loan Data Submission Date
- Edit Type (Short Description)
- Edit Date (this date will be the edit resolution date if edit has been resolved)

4.2.7.3. Certain data elements displayed in each row returned in the Edit Workflow Manager will contain hyperlinks. These data elements are:

- Fannie Mae Loan Number – if clicked will bring up the submitted loan information.
- Edit Type – Will give clear and concise information on the edit, why it fired, and what the seller needs to do to fix the data. *Note: this is help text information that will ensure the seller understands the edit definition and what they need to do to fix it.

4.2.7.4. If the edit is a warning, the seller does not have to do anything. Edits that fire that are warnings will be logged in the loan's edit audit/history on the loan. Edits with a severity equal to warning will automatically disappear from the Edit Workflow Manager once the loan is purchased or pooled.

4.2.7.5. If the edit is overrideable, the seller will have the option of overriding the edit. All overrideable edits will be logged in the loan's edit audit/history. As stated in the Audit section, the user ID, user name, and date/time stamp will be captured when any edit is overridden.

4.2.7.6. If the edit is non-overrideable (fatal), the seller must re-submit new data to resolve the edit. Every time new data is submitted, the system will rerun the business edits. As stated in the Audit section, the user id, user name, date/time stamp will be captured in the loan's audit/history for every fatal error.

4.2.7.7. The user will have the ability to manually request the loan's format business edits to be rerun. As stated above, whenever new data is received on a loan, the format and business edits will automatically be rerun.

4.2.7.8. Sellers can edit their loans using our UI. This is accomplished by submitting loans via batch.

4.2.7.9. If the seller calls our edit service via batch submission, then the system will create a detailed edit batch report. This edit batch report will be available on-line

and will contain the following information: Seller Number, Fannie Mae loan Number, Pool Number, Transaction Type, Data Submission ID, Edit Type, Edit Severity, Edit Date.

4.2.7.10. A seller will have the ability to look up their Edit Batch Reports by Data Submission Date.

4.2.7.11. When the system displays the edits for a loan online, a user must be able to easily move back and forth between the edit description, edit help text and loan data report.

4.2.7.12. Internal authorized users will be able to waive or modify edits based on the following criteria:

- By Seller Number
- By Contract
- By Pool/Loan
- By Data Submission ID

4.2.7.13. All edits must have effective dates and versions. In addition, they must show the last change date and last change user ID for an audit log. Multiple levels should be available as the edits could be modified several times a day. Once modified, the edits should be tested prior to moving them to production.

4.2.7.14. If a rule is dependent on a specific date (i.e. pool issued date), use the date to apply the rule that is in effect.

4.2.7.15. If a rule is not dependent on a date, use the current system date to identify which rule to apply.

4.2.7.16. An audit trail of all edit changes will be logged, saved and available for review.

4.2.7.17. The edit rules need to specify what business function they apply to:

- All
- Committing
- Delivery
- Post Purchase Adjustment
- Servicing
- Securitization

- 4.2.7.18. Provide the ability to track edit failures after submission to Fannie Mae for further processing.
- 4.2.7.19. Derived data calculations and other processing logic are initiated as part of the edit request.
- 4.2.7.20. Derivations may need to be set up by product.
- 4.2.7.21. Derived information that is required to be displayed on the various screens throughout the UI will be populated.
- 4.2.7.22. Provide an "editing utility" that allows sellers to upload data into the delivery system for editing purposes only. This data does not have to be stored in the database.

4.2.8. Edit Service Manager – Maintenance

The Edit Manager will include a UI that will enable authorized internal Fannie Mae users to easily enter and maintain all edit rules (add, modify and delete). The following describes the edit maintenance manager application.

- 4.2.8.1. Authorized Fannie Mae users will log into the system to initiate the rule maintenance UI.
- 4.2.8.2. Users will be presented with options for Searching, Copying, Adding, and Deleting rules.
- 4.2.8.3. The search functionality will be flexible so that the user can search through existing edits by any supported criteria, such as edit ID, key words, data elements, range of values, author, etc.
- 4.2.8.4. User will be able to perform add, modify and delete actions on any selected edits from the search results.
- 4.2.8.5. The system will provide a "Save As" functionality that copies the whole logic of an existing rule based on which the user can add new rules without having to build complicated rules from scratch, i.e. copy, modify and save as.
- 4.2.8.6. Following is the basic functionality for creating a new edit:
 - 4.2.8.6.1. Copy: Copy and modify an existing edit and save as a new edit.
 - 4.2.8.6.1.1. When the user wants to create a new edit by copying and modifying they will first need to search for an edit that they believe has similar logic than the rule they intend to create. Once the rule is identified, they will select the rule and select the copy function. The system will then ask them to enter a different and unique edit ID and short descriptive title. The process will continue as indicated in section 4.1.3.2.6.3.

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